

WHAT IS CLAIMED IS:

1. A device for facilitating communications between an elevator passenger and a person outside of the elevator through use of an elevator telephone, the device comprising:

5           a service port configured for connection to a telephone company feed line;

          an elevator telephone port configured for connection to an elevator telephone, wherein said elevator telephone port is selectively coupled with said service port through a first switch that is configured to isolate the service port from the elevator telephone port upon receiving a first signal;

10           a supervisor port configured for connection to a supervisor telephone;

          a second switch configured to facilitate electrical coupling between the elevator telephone port and the supervisor port upon receiving a second signal;

          a control circuit configured to provide the first and second signals in response to an activation command; and

15           a ring circuit configured, as directed by the control circuit, to cause an elevator telephone connected to the elevator telephone port to ring.

2. The device of claim 1 further comprising a detection circuit configured to determine whether an elevator telephone connected to the elevator telephone port is off-hook, and to generate a corresponding answer signal for transmission to the control circuit, wherein the control circuit is operative to disable the ring circuit in response to the answer signal.

3. The device of claim 1 further comprising a power supply circuit for providing, as directed by the control circuit, electrical power to the elevator telephone port and to the supervisor port in order to facilitate voice communication between an elevator telephone connected to the elevator telephone port and a supervisor telephone connected to the supervisor port.

4. The device of claim 1 wherein the first switch comprises a relay configured to selectively isolate the service port from the elevator telephone port.

5. The device of claim 4 wherein the second switch comprises a relay configured to selectively connect the elevator telephone port to the RDI line.

6. The device of claim 4 wherein the second switch comprises a relay configured to selectively disconnect the supervisor port from the RDI line.

7. The device of claim 5 wherein the first and second switches are integrated within a common relay.

8. The device of claim 1 further comprising a detection circuit configured to determine whether a handset of a supervisor telephone connected to the supervisor port is off-hook, the detection circuit being operative to generate an off-hook signal for transmission to the control circuit.

9. The device of claim 8 wherein the off-hook signal is the activation command.

10. The device of claim 1 further comprising an actuator configured to cause the generation of the activation command.

11. The device of claim 1 further configured to generate rings having a shortened cycle time.

12. The device of claim 11 further comprising a DTMF keypad and a corresponding tone generator circuit.

13. The device of claim 1 wherein the control circuit comprises at least one microcontroller.

14. A device for facilitating communications between an elevator passenger at an elevator telephone and a person outside of the elevator at a microphone/speaker pair, the device comprising:

a service port configured for connection to a telephone company feed line;

- an elevator telephone port configured for connection to an elevator telephone, wherein said elevator telephone port is selectively coupled with said service port by a first switch that is configured to isolate the service port from the elevator telephone port upon receiving a first signal;
- 5           a second switch configured to facilitate electrical coupling between the elevator telephone port and a microphone/speaker pair upon receiving a second signal;
- a control circuit configured to provide the first and second signals in response to an activation command; and
- 10          a ring circuit configured, as directed by the control circuit, to generate a ring signal for ringing an elevator telephone connected to the elevator telephone port.
15. The device of claim 14 further comprising a detection circuit configured to determine whether an elevator telephone connected to the elevator telephone port is off-hook, and to generate a corresponding answer signal for transmission to the control circuit, wherein the control circuit is operative to disable the ring circuit in response to the answer signal.
16. The device of claim 14 further comprising a power supply circuit for providing, as directed by the control circuit, electrical power to the elevator telephone port in order to facilitate voice communication between a microphone/speaker pair and an elevator telephone connected to the elevator telephone port.
17. The device of claim 14 further comprising at least one of a microphone and a speaker of a microphone/speaker pair.
18. The device of claim 17 further comprising both a microphone and a speaker of a microphone/speaker pair.
19. The device of claim 14 further comprising a supervisor port configured for connection with at least one of a microphone and a speaker of a microphone/speaker pair.

20. The device of claim 19 further comprising a supervisor port configured for connection with both a microphone and a speaker of a microphone/speaker pair.

21. The device of claim 20 wherein the supervisor port is configured for connection with a supervisor telephone having a microphone/speaker pair.

22. The device of claim 14 further comprising a DTMF keypad and a corresponding tone generator circuit.

23. The device of claim 14 further comprising an actuator configured to cause the generation of the activation command.

24. The device of claim 14 further configured to generate rings having a shortened cycle time.

25. The device of claim 14 wherein the control circuit is configured to simultaneously provide the first and second signals.

26. The device of claim 14 wherein the control circuit is configured to sequentially provide the first and second signals with an intervening delay.

27. An elevator system comprising an elevator having a telephone selectively connected to a telephone company feed line through a communication device, the communication device further connected to a supervisor telephone and including:

5       a first switch configured to electrically isolate the elevator telephone from the feed line upon receiving a first signal;

      a second switch configured to facilitate electrical coupling between the elevator telephone and the supervisor telephone upon receiving a second signal;

      a control circuit configured to provide the first and second signals in response to an activation command; and

10       a ring circuit configured, as directed by the control circuit, to cause the elevator telephone to ring.

28. The device of claim 27 further comprising a detection circuit configured to determine whether the elevator telephone is off-hook, and to generate a corresponding answer signal for transmission to the control circuit, wherein the control circuit is operative to disable the ring circuit in response to the answer signal.

29. The device of claim 27 further comprising a power supply circuit for providing, as directed by the control circuit, electrical power to the elevator telephone and the supervisor telephone in order to facilitate voice communication therebetween.

30. A method for facilitating communications between an elevator passenger and a person outside of the elevator through use of an elevator telephone, the elevator telephone connected to a telephone company feed line, the method comprising:

receiving an activation command from the person outside of the elevator;

5 isolating the elevator telephone from the feed line in response to the activation command;

connecting the elevator telephone with an RDI line in response to the activation command; and

10 providing a ring signal to the elevator telephone over the RDI line upon connection of the elevator telephone with the RDI line.

31. The method of claim 30 further comprising the step of detecting the answering of the elevator telephone, in response to which the ring signal is no longer provided.

32. The method of claim 30 further comprising the step of providing power to the elevator telephone from the RDI line in order to facilitate voice communication between the elevator passenger and the person outside of the elevator.

33. A device for facilitating communications between an elevator passenger and a person outside of the elevator through use of an elevator telephone, the device comprising:

a service port configured for connection to a telephone company feed line;

5           an elevator telephone port configured for connection to an elevator telephone,  
wherein said elevator telephone port is selectively electrically coupled with said  
service port through a means for isolating the service port from the elevator telephone  
port in response to an activation command;

          a supervisor port configured for connection to a supervisor telephone;

10          means for detecting the activation command;

          means for facilitating a communication link between the elevator telephone  
port and the supervisor port in response to the activation command; and

          means for ringing an elevator telephone connected to the elevator telephone  
port.

33. The device of claim 32 further comprising means for detecting the  
answering of an elevator telephone connected to the elevator telephone port.

34. The device of claim 32 wherein the means for isolating comprises a relay.

35. The device of claim 34 wherein the means for facilitating comprises the  
relay.

36. The device of claim 32 wherein the means for facilitating comprises at  
least one relay.

37. A device for facilitating communications between an elevator passenger  
and a person outside of the elevator through use of an elevator telephone, the device  
comprising:

          a service port configured for connection to a telephone company feed line;

5           an elevator telephone port configured for connection to an elevator telephone,  
wherein said elevator telephone port is selectively coupled with said service port;

          a supervisor port configured for connection to a supervisor telephone; and

a control circuit operatively coupled with the service port, the elevator telephone port and the supervisor port, the control circuit configured to facilitate  
10 isolation of the service port from the elevator telephone port in response to an activation command, and to facilitate electrical coupling between the elevator telephone port and the supervisor port in response to the activation command, wherein the control circuit is further configured to facilitate ringing of an elevator telephone connected to the elevator telephone port.